

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554
DOCKET FILE COPY ORIGINAL

ORIGINAL

In the Matter of)
)
Amendment of Parts 2 and 25 to Implement)
the Global Mobile Personal Communications)
by Satellite (GMPCS) Memorandum)
of Understanding and Arrangements)
)
Petition of the National Telecommunications and)
Information Administration to Amend Part 25 of the)
Commission's Rules to Establish Emissions Limits for)
Mobile and Portable Earth Stations Operating in the)
1610-1660.5 MHz Band)

IB Docket No. 99-67

RM No. 9165

RECEIVED

JUN 21 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

COMMENTS OF AMSC SUBSIDIARY CORPORATION

Bruce D. Jacobs
Stephen J. Berman
Fisher Wayland Cooper
Leader & Zaragoza L.L.P.
2001 Pennsylvania Ave., N.W.
Suite 400
Washington, D.C. 20006
(202) 659-3494

June 21, 1999

Lon C. Levin
Vice President and Regulatory Counsel
AMSC Subsidiary Corporation
10802 Park Ridge Boulevard
Reston, Virginia 20191
(703) 758-6000

No. of Copies rec'd
List ABCDE

014

Summary

AMSC Subsidiary Corporation (“AMSC”) urges the Commission to implement the Global Mobile Personal Communications by Satellite (“GMPCS”) framework in a way that maintains the integrity of its licensing processes and avoids unreasonable harm to existing U.S. MSS licensees.

Consistent with the Commission’s proposals in its *NPRM*, the Commission should make clear that domestic implementation of GMPCS will leave intact the legal, technical, and financial qualifications test associated with the Commission’s blanket licensing process, including the blanket licensing conducted under the *DISCO II* framework. The Commission must retain the discretion to deny a foreign-licensed system’s application to provide service in the United States on the basis of such public interest factors as spectrum availability, character issues, and technical qualifications. Action consistent with the Commission’s proposal is critical to AMSC at this time, with non-U.S. GMPCS systems in the MSS L-band currently seeking access to the U.S. market despite both the lack of available L-band spectrum and their failure to satisfy the Commission’s technical requirements.

The Commission proposes that ITU-marked GMPCS terminals be permitted to enter into the United States, even if use of those terminals in the U.S. has not been authorized by the Commission. AMSC believes that the Commission should do more than it has proposed to prevent the illegal domestic operation of ITU-marked but unauthorized GMPCS terminals. Such action is necessary in light of the domestic marketing efforts of unauthorized GMPCS operators, and the law enforcement and national security issues recently raised by FBI and U.S. Department of Justice with reference to the domestic operation of foreign-based GMPCS systems. Specifically, GMPCS operators with the technical ability to block calls to and from the United States should be required to implement this technology, and GMPCS operators lacking this technical ability should at least be obligated to impose some non-technical restriction on such

domestic use. If there is evidence that an operator's terminals are being used illegally in the U.S., the Commission should block the entry of those terminals until the operator can demonstrate that it can prevent such use.

The Commission should modify its proposed implementation of limits on out-of-band emissions from GMPCS terminals into the 1597-1605 MHz, to be used by Glonass. The integration of Glonass into a U.S. domestic GNSS is highly speculative. To the best of AMSC's knowledge, Congress has yet to budget any money for such a process, and, moreover, even after such a commitment is made, it will take more than a decade to complete the integration process. Accordingly, this deadline should be postponed until 2010 at the earliest. If the Commission adopts a 2005 deadline for the phasing out of non-compliant terminals, it should at the very least establish that it is prepared to waive or postpone this deadline if it becomes clear that Glonass will not be used in the United States for aeronautical navigation by 2005.

Finally, there is no legitimate reason for the Commission to reconsider its 1996 decision to exempt MSS providers from E911 requirements, which was based on its recognition that there are serious technological obstacles to MSS operators' compliance with these rules. AMSC is in the fourth year of its ten-year license, and its technology has not changed. While AMSC already provides callers with excellent emergency service in most cases, through its professionally trained emergency operators, AMSC is currently unable to provide automatic location identification and automatic number identification over its MSS system. The system modifications required to do so would cost several hundred million dollars, and at this still relatively early stage of AMSC's development, such expenditures are simply not feasible and would jeopardize the public safety benefits of AMSC's system.

Table of Contents

Background	1
Discussion	12
I. In Implementing the GMPCS Framework, the Commission Should Maintain the Integrity of the Commission's Blanket Licensing Process	12
II. The Commission Should Do More to Prevent the Unauthorized Use of GMPCS Terminals in the United States	13
III. The Commission Should Postpone Its Deadline for the Retirement or Retrofitting of Non-Compliant GMPCS Terminals	14
IV. There is No Reason for the Commission to Revisit the Commission's 1996 Decision to Exempt AMSC and Other MSS providers from E911 Requirements	16
Conclusion	18
Exhibit A	

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Parts 2 and 25 to Implement)	IB Docket No. 99-67
the Global Mobile Personal Communications)	
by Satellite (GMPCS) Memorandum)	
of Understanding and Arrangements)	
)	
Petition of the National Telecommunications and)	RM No. 9165
Information Administration to Amend Part 25 of the)	
Commission's Rules to Establish Emissions Limits for)	
Mobile and Portable Earth Stations Operating in the)	
1610-1660.5 MHz Band)	

COMMENTS OF AMSC SUBSIDIARY CORPORATION

AMSC Subsidiary Corporation ("AMSC") hereby comments on the Commission's proposals in the above-captioned rulemaking proceeding on domestic implementation of the Global Mobile Personal Communications by Satellite ("GMPCS") framework. AMSC urges the Commission to implement the GMPCS framework in a way that maintains the integrity of its licensing processes and avoids unreasonable harm to existing U.S. MSS licensees. In addition, there is no legitimate reason for the Commission to reconsider its 1996 decision to exempt MSS providers from E911 requirements.

Background

AMSC's System and Its Licensed Mobile Terminals. AMSC is a GMPCS system operator.^{1/} AMSC is the entity authorized by the Commission in 1989 to construct, launch and

^{1/} GMPCS is defined in the 1996 Final Report of the World Telecommunications Policy Forum as: "any satellite system (i.e., fixed or mobile, broadband or narrow-band, global or regional, geostationary or non-geostationary, existing or planned) providing telecommunications services directly to end users from a constellation of satellites."

operate the first U.S. MSS system in the upper L-band (1545-1559/1646.5-1660.5 MHz).^{2/} The first AMSC satellite, AMSC-1, was launched in 1995, and AMSC began offering service in 1996, representing an investment of over \$600 million. Today, AMSC offers a full range of land, maritime, and aeronautical mobile satellite services, including voice and data, throughout the contiguous United States, Alaska, Hawaii, the U.S. Virgin Islands, and coastal areas up to 200 miles offshore.

AMSC is permanently authorized to operate both mobile voice and mobile data terminals over its MSS system. In 1995, the Commission granted AMSC blanket licenses to operate up to 200,000 voice terminals and up to 30,000 data terminals.^{3/} All of these mobile terminals are well within the Commission's existing limits on out-of-band emissions into the Global Positioning System ("GPS") and Glonass frequency bands.^{4/}

The Commission's Policy in the MSS L-band. Spectrum access has been a critical issue for AMSC throughout its brief history. Early in the MSS licensing process, the Commission concluded that a domestic MSS system would need access to at least 10 MHz of spectrum in order to be viable and that there was only enough spectrum in the MSS L-band for the

^{2/} Memorandum Opinion, Order and Authorization, 4 FCC Rcd 6041 (1989); Final Decision on Remand, 7 FCC Rcd 266 (1992); *aff'd sub nom.* Aeronautical Radio, Inc. v. FCC, 983, F.2d 275 (D.C. Cir. 1993) ("*Licensing Order*").

^{3/} Order and Authorization, AMSC Subsidiary Corp., 10 FCC Rcd 9507 (Int'l Bur. 1995) (granting AMSC authority to construct and operate up to 200,000 mobile voice terminals in the L-band); Order and Authorization, AMSC Subsidiary Corp., 10 FCC Rcd 10458 (Int'l Bur. 1995) (granting AMSC authority to construct and operate up to 30,000 mobile data terminals in the L-band). AMSC has since modified its blanket license to permit the temporary operation of up to 33,100 mobile data terminals in the lower portion of the L-band. *See, e.g.,* Order and Authorization, AMSC Subsidiary Corporation, FCC File No. 179-DSE-MP/L-97 (November 26, 1996).

^{4/} The existing limit on out-of-band emissions into these frequency bands is -55 dBW/4 kHz or -31 dBW/MHz. 47 C.F.R. § 25.202(f).

Commission to authorize a single domestic MSS system.^{5/} The Commission ultimately assigned 14 MHz of spectrum to the domestic MSS licensee, AMSC.^{6/} AMSC has never gained full access to its licensed spectrum, however, because of the need to share this resource with other MSS systems in its region, including the Inmarsat, Canadian, Mexican, and Russian systems, all of which have coverage that overlaps AMSC's satellite footprint. The presence of these multiple MSS systems requires the international coordination of the available spectrum, a process that has been difficult because the aggregate demand of the different systems far exceeds the current supply of L-band spectrum.^{7/} In recognition of this shortage of spectrum in the band, the Commission in 1996 stated its intention not to license any additional MSS systems to provide service in the U.S. in the MSS L-band until it had successfully coordinated AMSC's system.^{8/}

Efforts by Other GMPCS Operators in the L-band to Access the U.S. Market. Despite the Commission's established spectrum management policy against licensing additional L-band systems to provide domestic service, both Inmarsat, through its signatory Comsat, and the

^{5/} Notice of Proposed Rule Making, Docket No. 84-1234, 50 FR 8149, para. 23 (January 28, 1985). Second Report and Order, Docket No. 84-1234, 2 FCC Rcd 485, paras. 4-9 (1987) ("*Second Report and Order*"), *clarified*, 2 FCC Rcd 2417 (1987), *recon. denied*, 4 FCC Rcd 6029 (1989) ("*MSS Recon Order*"), *rev'd and remanded on other grounds sub nom.*, Aeronautical Radio, Inc. v. FCC, 928 F.2d 428 (D.C. Cir. 1991), Tentative Decision on Remand, 6 FCC Rcd 4900 (1991), Final Decision on Remand, 7 FCC Rcd 266 (1992), *aff'd sub nom.*, Aeronautical Radio, Inc. v. FCC, 983 F.2d 275 (D.C. Cir. 1993).

^{6/} *Licensing Order* at para. 52.

^{7/} To date this process has only produced temporary arrangements, pursuant to the Mexico City Agreement, that neither provide AMSC with access to its licensed spectrum nor provide any assurance that the other parties to the negotiations will be accommodating over the long-term.

^{8/} Notice of Proposed Rulemaking, Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-band, IB Docket No. 96-132, 11 FCC Rcd 11675, paras. 9-11, 16 (1996) ("*Lower L-band NPRM*").

Canadian MSS licensee, TMI Communications and Company, L.P. ("TMI"), have sought authority to provide service in the United States.^{9/} In addition to their inability to comply with Commission spectrum management policies, these systems also fail to comply with key technical requirements governing the provision of MSS in the MSS L-band, including the requirement that all MSS operators in the L-band provide priority and preemptive access to aeronautical safety communications.^{10/} Despite these infirmities, these operators have been persistent in their efforts to access the U.S. market. With respect to TMI specifically, there are now pending a total of seven blanket license applications, both from TMI and its prospective resellers, to use its space segment to provide domestic service to more than 340,000 mobile terminals.^{11/}

During the pendency of their applications, Comsat and TMI have at various times engaged in concerted U.S. marketing campaigns that at worst ignore the Commission's policy and at best assume that this policy will be overturned.^{12/} Now, as GMPCS system operators, both Comsat and TMI will be able to take advantage of the GMPCS procedures, described below, that will facilitate the global circulation and trans-border operation of GMPCS terminals.

^{9/} See, e.g., Application of Comsat Corporation, FCC File No. 1281-DSE-P/L-96 (May 24, 1996); Application of TMI Communications and Company, L.P., FCC File No. 730-DSE-P/L-98 (March 30, 1998).

^{10/} See, e.g., Petition to Deny, AMSC Subsidiary Corporation, FCC File No. 1281-DSE-P/L-96, at 4-5 (July 12, 1996); AMSC Petition to Deny Application of TMI Communications and Company, L.P., FCC File No. 730-DSE-P/L-98, at 11-16 (May 29, 1998).

^{11/} See, e.g., Application of National Systems & Research Co., FCC File No. SES-LIC-19970217-00241 (February 17, 1999); Application of Infosat Communications, Inc., FCC File No. FCC File No. SES-LIC-19990128-00134 (January 28, 1999).

^{12/} See, e.g., Exhibit A to AMSC Subsidiary Corporation Reply to Opposition of TMI Communications and Company, L.P., FCC File No. 730-DSE-P/L-98 (June 29, 1998) (containing a paid advertisement section from *Via Satellite* and a June 22, 1998 TMI press release regarding its provision of packet data services to "all 50 states."); *Hemispheres*, United Airlines Magazine, at 46 (November 1996) (featuring a paid advertisement from Comsat describing its Planet 1 mobile terminal as being usable "anywhere on the planet," despite Comsat's lack of authority from the Commission to operate in the United States).

AMSC's Emergency Communications System. Unlike other regional GMPCS operators in the L-band, AMSC recognizes fully the importance of emergency communications.^{13/} AMSC's system has facilitated the provision of emergency services in vast areas presently unserved by any mobile communications facilities and, in many cases, by any communications facilities whatsoever. Moreover, AMSC has invested significant resources in the development of an emergency communications capability. Under its Emergency Referral Service ("ERS") system, AMSC has a group of professionally trained emergency operators on call at all times at its Reston headquarters. These operators request the caller's location and phone number and conference the caller in with the appropriate emergency contact, who is also supplied with this key information. Since 1995, when it implemented this system, AMSC's ERS system has processed approximately seven hundred and thirty emergency-related calls from its subscribers.

The Commission's GMPCS NPRM. On March 5, 1999, the Commission issued its Notice of Proposed Rule Making ("NPRM") proposing domestic implementation of the International Telecommunications Union ("ITU") GMPCS framework.^{14/} The GMPCS framework is the result of a process that began in October 1996 at the ITU's World Telecommunications Policy Forum and led to the completion of a GMPCS Memorandum of Understanding ("MOU"), GMPCS Arrangements, and, finalized in May 1998, a plan for Implementation of the GMPCS-MOU

^{13/} TMI has provided no indication in its application or any other filing that it would provide available any emergency communications capability to U.S.-based customers. *See, e.g.,* TMI Opposition to Petitions to Deny, FCC File No. 730-DSE-P/L-98, at 15-16 (June 15, 1998).

^{14/} On December 23, the Commission adopted interim procedures for GMPCS implementation that apply until the Commission adopts final rules in this proceeding. Order, 1998 Biennial Regulatory Review -- Amendment of Parts 2, 25 and 68 of the Commission's Rules to Begin Implementation of the Global Mobile Personal Communications by Satellite Arrangements, GEN Docket No. 98-68, 13 FCC Rcd 24687 (December 23, 1998).

Arrangements (the “GMPCS Implementation Plan”). The goal of the GMPCS framework is to facilitate the global circulation of GMPCS terminals throughout the world without altering the sovereign rights of nations to regulate telecommunications within their territories.^{15/}

In order to realize this free global circulation, the GMPCS Implementation Plan establishes procedures for the physical placement of an “ITU GMPCS-MOU mark” (or “ITU-mark”) on GMPCS equipment following (i) type acceptance of this equipment by a national administration that has commenced GMPCS implementation (a “GMPCS Signatory”) and (ii) that administration’s notification to the ITU regarding that type acceptance. The GMPCS Arrangements recommend that GMPCS Signatories allow the circulation of ITU-marked terminals within their national territories on a temporary or transitory basis, even where a use of a particular GMPCS system’s terminals has not been authorized by a Signatory.^{16/}

In its NPRM, the Commission proposes to modify its satellite rules to conform with the principles and procedures delineated in the GMPCS MoU, Arrangements, and Implementation Plan. Specifically, the Commission proposes to take the following steps:

(1) Global Circulation and GMPCS Certification. With respect to the circulation and use of GMPCS terminals, the Commission proposes that all GMPCS terminals bearing the ITU-mark be permitted to enter the United States. *NPRM* at para. 27. Unmarked GMPCS terminals would be prohibited from entering the United States. *NPRM* at paras. 26-27. Even if a GMPCS terminal bears the ITU-mark, under the Commission’s proposal this terminal could be operated in the United States or sold to U.S.-based customers only if the GMPCS system operator in question is authorized to provide service in the United States. *Id.* at paras. 25, 30. In order to prevent the

^{15/} GMPCS-MOU at 1.

^{16/} GMPCS Arrangements at 6, Specific Provision B. 4.

use of marked-but-unauthorized GMPCS terminals in the United States, the Commission indicates that it will exercise its enforcement powers under Title V of the Communications Act and hold GMPCS system operators responsible for any such illegal use. According to the Commission, GMPCS terminals operated on an unauthorized basis will be confiscated pursuant to Section 510 of the Communications Act. *Id.* at paras. 42-43.

The GMPCS framework specifically requires that GMPCS terminals be “type approv[ed]” by a participating administration in order to be eligible for the ITU-mark. Currently, the Commission has no separate equipment certification requirement for GMPCS terminals. Accordingly, in order to accommodate this GMPCS provision, the Commission proposes a requirement that all GMPCS terminals be equipment-certified before they can be sold or leased in the United States. *Id.* at para. 24.

As indicated above, the Commission does not propose to make affixation of the ITU-mark alone sufficient to permit the domestic operation of those marked terminals. The NPRM emphasizes that, in order to operate terminals in the United States, a GMPCS operator will still be required to obtain a blanket license from the Commission, and will have to satisfy all of the Commission’s applicable legal, technical, and financial requirements. *Id.* at para. 30. This policy will apply not only to U.S.-licensed satellite operators, but also to non-U.S. licensed operators seeking authority to provide service in the United States under the *DISCO II* regulatory framework. *Id.*

(2) *Proposed Limits on Out-of-band Emissions into the GNSS Band.* In conjunction with the Commission’s proposed GMPCS equipment certification procedure, the NPRM proposes the adoption of new limits on out-of-band emissions from GMPCS terminals into the frequency bands allocated for use by the Global Navigation Satellite System (“GNSS”), comprised of the GPS and

Glonass satellite systems. Specifically, under the Commission's proposal, all GMPCS terminals operating between 1610 and 1660.5 MHz and commissioned after January 1, 2002 must be built to meet limits of -70 dBW/MHz and -80 dBW/700 MHz throughout the 1559-1605 MHz band, and all terminals commissioned before January 1, 2002 must be retired or retrofitted by January 1, 2005 to conform to the -70/-80 dBW limits throughout the 1559-1605 MHz band. According to the Commission, these limits are necessary to protect GPS and Glonass from interference during those periods when these systems are used to navigate an aircraft's "precision approach" to an airport. *NPRM* at paras. 61-62.

The Commission's proposed limits are virtually identical to the standard proposed by the National Telecommunications and Information Administration ("NTIA") in September 1997.^{17/} In December 1997, AMSC filed comments urging the Commission to reject NTIA's proposal.^{18/} In particular, AMSC argued in its comments that NTIA's proposed 2005 deadline for the retirement or retrofitting of non-compliant terminals is unreasonable.^{19/} AMSC Comments at 17. AMSC pointed out that the development and integration of Glonass into GNSS in the United States is highly uncertain, given Russia's questionable economic and political support and the system's continuing operational problems. AMSC Comments at 3-4. AMSC pointed out further that

^{17/} See Letter to Regina M. Keeney, Chief, International Bureau, from Richard D. Parlow, Associate Administrator, Spectrum Management, National Telecommunications and Information Administration (September 18, 1997).

^{18/} See Comments of AMSC Subsidiary Corporation, Amendment of the Commission's Rules to Incorporate Mobile Earth Station Out-of-Band Emission Limits, RM-9165 (December 8, 1997) ("AMSC Comments").

^{19/} AMSC Comments at 17. In its Comments, AMSC also argued that the proposed standard (i) is unnecessarily stringent, (ii) would require satellite system operators and mobile terminal manufacturers to bear the heavy burden of replacing the customers' existing non-compliant terminals, rather than placing the burden on users of GNSS, and (iii) would not take into account emissions from much more pervasive sources, such as VHF radios operating in taxicabs, police vehicles, and other dispatch communications systems.

before Glonass can even be used by aviation for precision approaches, a variety of entities must achieve numerous government, technical, and business milestones,^{20/} and that experience with GPS indicated that such implementation would likely take more than a decade. Tellingly, the FAA did not yet have any budgeted plans for integrating Glonass into GNSS in the United States, and made no mention of Glonass in its annual aviation development plans.^{21/}

AMSC also showed that a 2005 deadline would impose substantial costs. While all of the terminals tested by AMSC met NTIA's proposed limits, AMSC indicated that it cannot know with certainty that all of its first-generation units will meet NTIA's limit on emissions into the Glonass band. *Id.* at 11-12. AMSC estimated that its manufacturers will have produced as many as thirty to forty thousand mobile terminals before it can introduce terminals assured of being compliant, including terminals that have already been manufactured but have not yet been installed. *Id.* AMSC pointed out that many of its customers expect to use the existing equipment for as long as it works, and, as a result, many of these terminals will be in use beyond 2005. AMSC would be required to replace these customers' terminals, at a cost to it of at least \$1,000-2,000 per terminal, and likely would have to guarantee a replacement terminal to any potential

^{20/} AMSC Comments at 4-5. As indicated in its Comments, these milestones include the following: (i) budget appropriations; (ii) development of Minimum Operational Performance Standards ("MOPS") for Glonass equipment, followed by the design, development, testing, and type certification of the avionics for each aircraft type; (iii) manufacture, installation, and certification of the equipment on each aircraft as it is brought in for major scheduled maintenance; (iv) FAA implementation of the required air traffic control procedures; training crews on the proper use of the Glonass equipment; (v) modification of WAAS to permit its operation in conjunction with Glonass, and contracts for these upgrades; and (vi) an end-to-end system certification program by the FAA to assure that all parts of the system meet the requirements for use on precision approaches.

^{21/} AMSC Comments at 5 (citing 1997 FAA Plan for Research, Engineering & Development, Chapter 3, Communications, Navigation Surveillance, Satellite Navigation Program #032-110).

customer that expects to use its terminals that expects to use its unit beyond 2005.^{22/} If a large percentage of AMSC's first-generation voice terminals remain in use in late 2004, this would require AMSC to spend as much as \$80 million or more at that time. In its comments, AMSC took the position that the commercial airline industry and any other GNSS users should compensate AMSC for this cost. *Id.* at 13.

In response to AMSC's Comments, the Commission in the NPRM asked for comment on (i) when use of Glonass for navigation during precision approach is likely to begin in the U.S., and (ii) the possibility of waiving or postponing the compliance deadline with respect to emissions into the Glonass band if progress toward domestic implementation of Glonass is slower than expected. *NPRM* at para. 73. The Commission also noted AMSC's concern regarding the potentially \$80 million cost of prematurely retiring and replacing its existing terminals in 2005, and AMSC's view that Glonass users should compensate it for this cost. The Commission questioned whether there is a compelling basis for such compensation, stating that AMSC was on notice when it received its blanket licenses that it would be subject to any out-of-band emission limits deemed necessary for protection of GPS and Glonass. *NPRM* at para. 74.

(3) *Application of E-9-1-1 requirement to MSS and GMPCS systems.* The NPRM also asks whether it should impose on authorized GMPCS operators an "Enhanced 9-1-1" (or "E911") requirement. *NPRM* at para. 98. As defined by the Commission in an earlier E911 rulemaking proceeding, E911 service includes: (i) access to 911 service without user validation; (ii) priority access for 911 calls to insure that they are not blocked; (iii) the ability to identify the location of a

^{22/} As explained in AMSC's comments on NTIA's petition, the design of AMSC's terminals precludes the installation of internal or external filters as a means for assuring compliance with the proposed standard. AMSC Comments at 12, n. 15.

911 call (Automatic Location Identification, or “ALI”); (iv) the ability to reconnect a 911 caller if the call is disconnected; and (v) common-channel signaling to transmit information to Public Safety Answering Points (“PSAPs”) during a call.^{23/} In 1996, the Commission established a general E911 requirement for Commercial Mobile Radio Service (“CMRS”) providers.^{24/} The Commission recognized, however, that given the current state of MSS technology, MSS operators would have to overcome more obstacles to provide E911 than their terrestrial counterparts. As a result, application of the E911 requirement to MSS providers might impede the development of the service and reduce these providers’ ability to meet public safety needs. *E911 Order* at para. 83. Accordingly, the Commission decided not to impose any E911 obligations on MSS providers, but did indicate that it expected that MSS voice providers would eventually be required to provide appropriate access to emergency services. *Id.*

Less than three years after its E911 order, the Commission raises anew the issue of E911 requirements for MSS providers. The Commission asks whether, in light of MSS technological developments that it does not identify, it should prospectively require GMPCS systems to implement their systems with E911 capabilities. *NPRM* at para. 98. The Commission inquires whether, if E911 requirements are imposed, appropriate transition measures should be adopted to ensure that any new requirement does not adversely affect systems “at an advanced stage of design or deployment.” The Commission seeks comment on what kinds of accuracy location requirements could be applied to MSS operators, and also asks whether MSS operators should provide automatic number identification. *Id.*

^{23/} See Notice of Proposed Rulemaking, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, 9 FCC Rcd 6170, 6186-90 (1994).

^{24/} See Report and Order and Further Notice of Proposed Rule Making, Revision of the Commission’s Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, 11 FCC Rcd 18676 (1996) (“*E911 Order*”).

Discussion

I. In Implementing the GMPCS Framework, the Commission Should Maintain the Integrity of the Commission's Blanket Licensing Process

As indicated above, the Commission proposes to continue to apply its existing blanket licensing procedures to GMPCS systems that wish to provide service to mobile terminals located in the United States. In its order, the Commission should act consistent with this proposal, and reconfirm that any entity seeking to provide domestic GMPCS is required to obtain a blanket license for those terminals. To obtain a blanket license, such entity must demonstrate that it meets the Commission's legal, technical, and financial qualifications.

It is critical to AMSC that the Commission reaffirm that its blanket license requirement will continue to apply both to U.S. satellite licensees and foreign-licensed satellite systems. Under the *DISCO II* licensing framework,^{25/} the Commission can deny a foreign-licensed system's blanket license application on the basis of such public interest factors as spectrum availability, character issues, and technical qualifications. In particular, the Commission stated in *DISCO II* that where it has already licensed the maximum number of satellites that can be accommodated in a particular frequency band, it cannot offer opportunities for new entrants, including non-U.S. satellite systems.^{26/} As indicated above, non-U.S. L-band GMPCS operators are currently seeking to access the U.S. market, despite both the lack of available spectrum in the MSS L-band and their failure to satisfy the Commission's technical requirements. The Commission should make

^{25/} Report and Order, Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Service in the United States, 12 FCC Rcd 24094 (1997) ("*DISCO II Order*").

^{26/} See *DISCO II Order* at para. 147; Notice of Proposed Rulemaking, Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Service in the United States, 11 FCC Rcd 18178, para. 50 (1996).

clear to these systems that these public interest factors will continue to be relevant to their applications, and that the mere affixation of the ITU-mark to their terminals will not enable them to provide service to U.S.-based customers.

II. The Commission Should Do More to Prevent the Unauthorized Use of GMPCS Terminals in the United States

To be consistent with the GMPCS framework, the Commission proposes that ITU-marked GMPCS terminals be permitted to enter into the United States, even if use of those terminals in the U.S. has not been authorized by the Commission. While the Commission states that it will hold GMPCS system operators responsible for any illegal use of unauthorized mobile terminals and will confiscate any illegally operated terminals, AMSC does not believe that these commitments represent an effective mechanism for preventing such unauthorized operations. Given the aggressive marketing tactics of regional L-band GMPCS operators that have applied to access the U.S. market in contravention of critical spectrum management policies, the Commission should do more in its GMPCS implementation order to prevent such illegal activity.

Specifically, before permitting a GMPCS system operator's marked-but-unauthorized terminals to circulate within the United States, the Commission should require that operator to file a showing that describes its technical ability to prevent calls to and from terminals located in the U.S. GMPCS system operators that have the technical ability to prevent such calls, through call-blocking technology or some other mechanism, should be required to implement this technology in the U.S. While AMSC is not optimistic about the effectiveness of non-technical enforcement mechanisms, GMPCS system operators without this technical capability should at least be obligated to impose some non-technical restriction on such domestic use, such as a prohibition on such calls in customers' service contracts, with termination of service to customers violating this provision. Where there is evidence that a GMPCS system operator's terminals are being used

illegally in the United States, the Commission should block the entry of its terminals until the operator can demonstrate that it can prevent such use.

AMSC notes that the U.S. Department of Justice and the Federal Bureau of Investigation have expressed deep concern regarding the ability of U.S. law enforcement to conduct electronic surveillance of U.S.-originated or U.S.-terminated MSS calls that are routed through gateway earth stations located outside the United States.^{27/} In implementing the GMPCS framework, the Commission should recognize that GMPCS system operators with marked-but-unauthorized terminals may have gateway earth station facilities outside the U.S. and that, as a result, the circulation of such terminals into the U.S. will raise national security and law enforcement concerns.

III. The Commission Should Postpone Its Deadline for the Retirement or Retrofitting of Non-Compliant GMPCS Terminals

AMSC continues to believe that any deadline for retiring or retrofitting existing GMPCS terminals that do not comply with the Commission's proposed limits on out-of-band emissions into the Glonass band should be postponed until 2010 at the earliest. The integration of Glonass into a U.S. domestic GNSS is highly speculative and has no specific schedule. To the best of AMSC's knowledge, Congress has yet to budget any money for such a process. Moreover, even after such a commitment is made, it will take more than a decade to complete the integration process. Standards must be set, the necessary equipment must be designed and manufactured, equipment must be installed and crews trained, and the overall system must be certified both

^{27/} See Letter from Eric H. Holder, Jr., Deputy Attorney General, United States Department of Justice, to William E. Kennard, Chairman, Federal Communications Commission, FCC File No. 730-DSE-P/L-98 (June 14, 1999); Federal Bureau of Investigation's Petition to Defer and Request for Imposition of Conditions, FCC File No. 730-DSE-P/L-98 (April 7, 1999). These filings are attached at Exhibit A.

internationally and by the FAA. Until the money is budgeted for this process and there is a realistic timetable for the total process, no substantial and unnecessary burdens should be imposed on others to protect Glonass from interference.^{28/} In particular, the Commission should not impose on AMSC a liability of \$60-80 million to replace non-compliant terminals that remain in use at the end of 2004, which is little more than five years away and well before the end of the terminals' likely operational life.

If the Commission adopts a 2005 deadline for the phasing out of non-compliant terminals, it should at the very least establish that it will monitor Glonass' development and its role in precision navigation for commercial aircraft and that it is prepared to waive or postpone this deadline if it becomes clear that Glonass will not be used in the United States for aeronautical navigation by 2005.

Finally, if the Commission forces AMSC to absorb such an enormous and unnecessary liability, AMSC continues to believe that it would be appropriate to require GNSS users to compensate it for these costs.^{29/}

^{28/} The obstacles to the development of Glonass as a reliable global navigation system for civil aircraft were further highlighted in the "Comments of National Public Safety Telecommunications Council ("NPSTC") in Response to Third Notice of Proposed Rulemaking," WT Docket No. 96-98 (January 19, 1999). (In that proceeding, the Commission is considering limits on out-of-band emissions into the GNSS bands from public safety stations transmitting in the 794-806 MHz band.) NPSTC points to a December 1997 report from MIT indicating that the Glonass constellation is currently missing eight of its twenty-four satellites, and that, as of that date, half of the satellites that were deployed were operating beyond their three-year design life. NPSTC Comments at 13. Given the apparent chronic deficiencies in this system and the general fiscal and political instability in Russia, it is not surprising that in September 1998 the head of the FAA indicated in a memo to the Deputy Secretary of the Department of Transportation that "[t]he FAA supports the vision of the White House for GPS as the international standard for navigation, positioning, and timing." *Id.* at 14.

^{29/} See, e.g., First Report and Order, Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, 7 FCC Rcd 6886, 6890 (1992)

IV. There is No Reason for the Commission to Revisit the Commission's 1996 Decision to Exempt AMSC and Other MSS providers from E911 Requirements

In the Commission's 1996 decision exempting MSS providers from its E911 requirements, the Commission recognized that there are serious technological obstacles to MSS operators' compliance with these rules. *E911 Order* at para. 83. AMSC explained in that proceeding that due to the technical limitations of its MSS system, it could not satisfy a limited number of the Commission's proposed E911 requirements, particularly those relating to the provision of automatic location identification ("ALI") and automatic number identification ("ANI") over its system.^{30/} In particular, ALI is precluded by AMSC's reliance on five slightly overlapping satellite beams that generally cover the North American region; while AMSC can tell which beam is being utilized on a call, each of these beams covers thousands of square miles, and AMSC therefore cannot therefore determine a user's location. As AMSC indicated in the E911 proceeding, the modifications required to comply with the proposed E911 requirements, especially those pertaining to ALI, would require several hundred million dollars of changes to AMSC's system design. This would include significant modifications to AMSC's earth station and switch, as well as to its mobile terminals.^{31/} *E911 Comments* at 8-9.

Less than three years after the Commission's E911 decision, there is no basis for eliminating or narrowing the E911 exemption granted to MSS providers. While the Commission

(requiring emerging technology providers requesting involuntary relocation of 2 GHz Fixed Microwave Services to guarantee payment of all relocation expenses and build the new microwave facilities at the relocation frequencies).

^{30/} Comments of AMSC Subsidiary Corp., Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, RM-8143, at 7-9 (March 4, 1995) ("E911 Comments").

^{31/} At the least, modifications would have to be made to AMSC's channel unit software, signaling units, network access processor, and station logic signaling subsystem. *E911 Comments* at 8-9.

refers to unidentified “technological developments” in the MSS industry, AMSC’s MSS technology remains the same, and it still has no current ability to comply with the Commission’s E911 requirements. Moreover, at this still relatively early stage of the development of AMSC’s MSS system, the enormous investment that would be necessary to comply with these requirements is simply not feasible. If the Commission imposes such costs, it will greatly jeopardize the public safety benefits that result from AMSC’s system even without these E911 services.

AMSC already provides callers with excellent emergency service in most cases. As described above, AMSC has a group of professionally trained emergency operators on call at all times to request a caller’s location and phone number and conference the caller in with the appropriate emergency contact, who is also supplied with this key information.

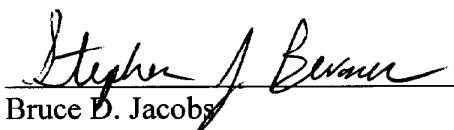
AMSC’s commitment to effective emergency communications contrasts with the apparent indifference of TMI, which has never provided any indication that it would provide a similar emergency service if granted authority to provide service in the United States. Accordingly, rather than impose unrealistic E911 requirements on existing GMPCS operators, AMSC recommends that the Commission require any GMPCS system such as TMI that seeks domestic authority to demonstrate that it can provide an effective emergency capability comparable to that provided by AMSC.

Conclusion

Therefore, based on the foregoing, AMSC urges the Commission to act in a manner consistent with the views expressed in these Comments.

Respectfully submitted,

AMSC SUBSIDIARY CORPORATION



Bruce D. Jacobs
Stephen J. Berman
Fisher Wayland Cooper
Leader & Zaragoza L.L.P.
2001 Pennsylvania Ave., N.W.
Suite 400
Washington, D.C. 20006
(202) 659-3494



Lon C. Levin
Vice President and Regulatory Counsel
AMSC Subsidiary Corporation
10802 Park Ridge Boulevard
Reston, Virginia 20191
(703) 758-6000

June 21, 1999

EXHIBIT A



U.S. Department of Justice

Office of the Deputy Attorney General

The Deputy Attorney General

Washington, D.C. 20530

June 14, 1999

Mr. William E. Kennard
Chairman
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: In the Matter of TMI Communications and Company, L.P.
For Blanket Authorization to operate up to 100,000
mobile-satellite earth terminals (METs) through
Canadian-licensed satellite MSAT-1 at 106.5 degrees
W.L., in frequency bands 1631.5-1660.5 MHZ (transmit)
and 1530-1559 MHZ (receive) throughout the Continental
United States, United States Territories, Alaska and
Hawaii, File No. 730-DSE-P/L 98 (E980179)

Dear Chairman Kennard:

The Federal Bureau of Investigation ("FBI") is currently a party to the above referenced proceeding now pending before the Commission. I am writing to reiterate the most serious concerns raised by the FBI in their filings with respect to this matter, and to express the Justice Department's ("DOJ") strong concurrence with those concerns. Because of the grave potential national security and law enforcement problems presented by the proposed operation of TMI Communications and Company, L.P.'s ("TMI") mobile satellite service system, we believe it is imperative that the company be required to take further remedial action before being granted a license to commence commercial telecommunications service in the United States.¹

As you are aware, TMI has engaged in negotiations with the FBI over potential solutions to the problems identified in the Bureau's

¹ I note that many of the same issues have been raised by the FBI in connection with SatCom System, Inc.'s Application for Blanket Authorization to Operate Up to 25,000 Mobile-Satellite Earth Terminals (METs) through Canadian-Licensed Satellite MSAT-1, File No. 647-DSE-P/L-98.

filings. The company has offered to attempt to satisfy certain of the FBI's electronic surveillance concerns by routing the traffic of its U.S. customers and subscribers through a switching facility in the United States. Although this proposed solution does address a number of the electronic surveillance problems presented by TMI's system, many of our remaining concerns arise from limits in TMI's basic technological infrastructure.² The problems primarily stem from TMI's systems absence of a geopositioning capability; that is its inability to determine the location -- even the approximate location -- of their phones when calls are made. Because of this fundamental limitation, TMI has stated that it is prepared to make calls available to U.S. law enforcement authorities at a proposed U.S. switch based on where the subscriber signs up for service. Those who subscribe through a U.S. reseller will have all of their calls routed to the U.S. switch. Those who subscribe through a foreign reseller will not have their calls automatically routed to the U.S. switch. The fundamental problem with this approach is that the place of purchase (e.g. Canada or Mexico) may be different from the location of the individual who is the subject of an intercept order (e.g. in the United States), especially since TMI's phones are portable devices that will work anywhere in North America and in various parts of the Caribbean. Thus TMI's system presents several extremely serious problems for law enforcement and national security authorities.

First, based on TMI's proposals to date, the Government would not be able to conduct timely electronic surveillance against TMI phones owned by customers or subscribers who purchase TMI services through foreign resellers. Indeed, TMI has stated that it would require the FBI to certify in an affidavit that such a subscriber "had been observed to be continuously within the U.S. for a period of at least four days" before surveillance would be permitted--and even then surveillance would not begin for 24 hours and would last for only one week. Leaving aside the fact that federal law requires no such surveillance or certification, it is simply untenable for law enforcement or national security agencies to be expected to operate under such constraints. One need only imagine the result if the FBI were forced to delay or forgo a wiretap on a terrorist organization during the days or hours immediately before a bombing attempt simply because the suspects had only recently entered the United States from Canada.

² TMI was cooperative with law enforcement during early negotiations, and initially attempted, within the limits of their system's capabilities, to address the FBI's concerns. Nonetheless, the FCC should not overlook the fact that TMI's system simply is not compatible with some of the Government's most basic law enforcement and national security electronic surveillance requirements. Moreover, it is important to note that since the filing of FBI's opposition to TMI's application, the company has declined several offers to continue negotiations aimed at addressing the outstanding issues.

At the same time, wire taps against U.S. customers and subscribers of TMI's service may run afoul of Canadian wire tap law on a regular basis. It is our understanding that Canadian wire tap law protects the conversations of persons who are communicating over telecommunication facilities from anywhere in Canada. Since all U.S. subscriber calls would be routed through a switch in the United States regardless of the location of the subscriber at the time of the call, U.S. law enforcement authorities will fear violating Canadian law when they tap calls made by a subscriber who contracted for service through a U.S. reseller while he or she is traveling in Canada. If U.S. law enforcement authorities are forced to positively determine the location of targets through independent investigative means before an intercept order can be executed, the potential delays in investigative operations would be significant.

On a purely operational level, even if a means could be found to timely initiate wire taps against TMI phones, the lack of any location information is likely to severely hamper the usefulness of the intercepted information. Finding out that a drug deal, murder or bombing is about to occur without having any indication of the location of the criminal is only marginally useful. Although it is not necessary for the FBI to be able to precisely pinpoint the location of a given phone at a given point in time, it is important to be able to at least identify the judicial jurisdiction where the crime has occurred or will occur. Such information is necessary to instigate other investigative measures such as search warrants.

Moreover, TMI's proposals have not attempted to address the national security, emergency preparedness and other concerns raised in the FBI's opposition.

I stress that DOJ does not consider any of these concerns to be merely theoretical or potential problems. Rather, they are actual and immediate impediments law enforcement and national security authorities will face if TMI is permitted to initiate commercial service based on their current operational plans. Moreover, we have concrete reason to believe that criminal and terrorist groups will take full advantage of these vulnerabilities if TMI becomes available to the public. We have learned from anecdotal evidence, derived from confidential informants and Title III wiretaps, that drug trafficking organizations are making deliberate attempts to seek out communications devices that are beyond our surveillance capabilities. Certain communications devices have been cited by name by criminal targets as examples of devices believed to be immune from interception by law enforcement. If the criminal community becomes aware of these TMI interception limitations, there is a substantial likelihood that TMI will become a communication tool of choice among drug dealers, organized crime and terrorist groups.

Finally, we are extremely concerned that if the FCC grants TMI a license under these circumstances, and over the public objections of the FBI, other carriers will ignore law enforcement, national security and public safety concerns in the development of future mobile satellite service systems intended to provide U.S. domestic telecommunications. As I am sure you are aware, there are a number of other companies currently planning to offer mobile satellite services in the United States over the next few years. We believe it is imperative that all of these providers take steps to ensure that their systems are at least as capable of conducting lawful electronic surveillance as traditional land line and mobile cellular systems.

We realize that these issues are both new and difficult. We also recognize that resolving these concerns may be difficult for some providers, especially those like TMI that are relying on older technologies. Nonetheless, we believe that the public interest cannot be served by allowing telecommunication providers to offer services that are likely to result in significant risks to public safety. Just as the FAA would not license vintage aircraft that could not comply with modern safety requirements to provide commercial transportation services to the public, the FCC should not license a vintage communication system that is incapable of complying with law enforcement requirements.

I urge you to give serious consideration to these concerns as you assess TMI's license application. I respectfully submit that this is an instance in which the Commission should "accord deference to the expertise of Executive Branch agencies in identifying and interpreting issues of concern related to national security, law enforcement, and foreign policy" as the FCC has consistently committed to do, in the "Disco II" Order and elsewhere, in a long line of Commission precedent.

I thank you for your attention to this matter. If you have any questions about the Department's concerns, or would like to discuss this matter further, please contact me.

Sincerely,



Eric H. Holder, Jr.
Deputy Attorney General

cc: Commissioner Susan Ness
Commissioner Harold Furchtgott-Roth
Commissioner Michael Powell
Commissioner Gloria Tristani

**Before the
Federal Communications Commission
Washington, D.C. 20554**

)
)
In the Matter of:)

TMI Communications and Company, L.P.)

**File No. 730-DSE-P/L-98
(E980179)**

)
For Blanket Authorization to operate up)
to 100,000 mobile-satellite earth terminals)
(METs) through Canadian-licensed)
satellite MSAT-1 at 106.5 degrees W.L.,)
in frequency bands 1631.5-1660.5 MHz)
(transmit) and 1530-1559 MHz (receive))
throughout the Continental United States,)
United States territories, Alaska,)
and Hawaii)
_____)

TO: Chief, International Bureau

PETITION TO DEFER AND REQUEST FOR IMPOSITION OF CONDITIONS

The Federal Bureau of Investigation (FBI) respectfully submits this Petition to Defer and Request for Imposition of Conditions on the above-captioned application of TMI Communications and Company, L.P. ("TMI"), a Canadian limited partnership, seeking a blanket authorization from the Federal Communications Commission ("Commission") to operate up to 100,000 mobile-satellite earth terminals (METs) through a Canadian-licensed MSAT-1 satellite and a Canadian-licensed earth station gateway located in Canada. Specifically, TMI seeks licencing authority to provide upper and lower L-band mobile-satellite services ("MSS"), including circuit-switched mobile telephone service and packet-switched data services, to land vehicles, maritime and aeronautical vessels, and temporary fixed stations within certain frequency bands.

I. Introduction

As TMI and the Commission are aware, the FBI has previously raised concerns that United States national security, law enforcement, and public safety may be adversely affected if U.S. mobile communications are switched, controlled and routed by a foreign located satellite earth station.¹ Recognizing that national security, law enforcement, and public safety concerns impact U.S. telecommunications services, public notice and review opportunities afforded under Sections 214, 308 and 310 of the Communications Act of 1934, 47 U.S.C. §§ 214, 308-310 (1997), and their implementing regulations allow interested parties to comment regarding licence applicants. The FBI therefore has standing to file this Petition to ensure that the Government's national security, law enforcement, and public safety concerns are satisfactorily addressed. Should the Commission ultimately approve TMI's application, the FBI requests the Commission to impose certain conditions on its approval of TMI's application necessary to satisfy national security, law enforcement, and public safety.

II. THE COMMISSION SHOULD DEFER ACTION ON TMI'S APPLICATION UNTIL RESOLUTION OF THE FBI'S NATIONAL SECURITY, LAW ENFORCEMENT, AND PUBLIC SAFETY CONCERNS WITH THE PROPOSED USE OF THE CANADIAN EARTH STATION TO SWITCH, CONTROL OR ROUTE U.S. COMMUNICATIONS.

Since notice of the referenced application was received, the FBI and the Department of Justice (DOJ) have engaged TMI in a series of discussions. During the course of these discussions, the FBI stated that the use of a foreign gateway to switch, control and route U.S. communications must not be permitted to impair the U.S. government's ability to: 1) carry out lawfully-authorized electronic surveillance of domestic U.S. calls or calls that originate or

¹ The Federal Bureau of Investigation's (FBI) Petition for Reconsideration of Iridium U.S., L.P.'s Section 214 Authorization, Feb. 9, 1998, FCC File No. ITC-97-697.

terminate in the United States; 2) ~~prevent~~ and detect foreign-based espionage and electronic surveillance conducted in violation of U.S. law, which would jeopardize the security and privacy of U.S. telecommunications, and ~~ultimately~~ foreclose prosecution of individuals involved in such activities; and 3) satisfy the National Security Emergency Preparedness (NSEP) and U.S. infrastructure protection requirements.

Understanding these concerns, TMI proposed certain actions it was prepared to take to satisfy certain of these concerns. Upon review of those proposals, the FBI identified a number of issues that remain unaddressed and which are deemed essential to fully resolving the national security, law enforcement and public safety concerns that have been identified. The FBI conveyed those concerns to TMI in writing. To date, TMI has not yet responded to those questions. Given the significance of the Government's national security, law enforcement and public safety concerns, TMI's knowledge of these concerns and the status of the ongoing negotiations, TMI is in no way prejudiced by the FBI's request, at this time, that the Commission defer action on TMI's application, pending a mutual resolution of these issues.

It is the FBI's full intention to continue to work diligently with TMI, upon receipt of TMI's response to the FBI's last correspondence, to reach a mutually acceptable solution to satisfy the U.S. national security, law enforcement and public safety concerns. Upon reaching agreement, the FBI would request the Commission to adopt the agreement as a condition to approval of TMI's application. The FBI will keep the Commission apprised of the progress in this matter and will alert it promptly should any substantial impasse develop.

FBI
sent letter
TMI has
not respond.

what
was
letter
sent
?

III. THE COMMISSION SHOULD NOT PERMIT TMI TO PROVIDE MSS SERVICE IN THE UNITED STATES ABSENT A CONDITION THAT TMI PROVIDE A POINT OF PRESENCE IN THE UNITED STATES THAT AFFORDS A SATISFACTORY TECHNICAL ABILITY AND THE JURISDICTIONAL AUTHORITY TO PROCESS LAWFUL ELECTRONIC SURVEILLANCE, PREVENT AND DETECT VIOLATIONS OF U.S. COMMUNICATIONS PRIVACY, AND RESPOND TO NSEP REQUIREMENTS.

In the absence of a point of presence in the United States affording the technical ability and jurisdictional authority to process lawful electronic surveillance, prevent and detect violations of U.S. communications privacy, and respond to NSEP requirements, the grant of TMI's application to provide domestic MSS to customers directly would impair the United States Government's ability to effectively utilize existing legal authority to protect the American public and the national security. Such a point of presence could include a U.S.-based earth station gateway to handle communications occurring in the U.S., or other facility or facilities that would satisfy the above-captioned concerns.

Currently, TMI has one geostationary satellite and one gateway (Land Earth Station, LES) located in Gloucester, Ontario, through which (TMI has explained) all calls to and from U.S. mobile terminals, as well as Canadian mobile terminals, would be routed. The mobile terminals will be used to provide circuit switched mobile telephone service and packet switched data services. The mobile terminal will be accessible by TMI's Network Communications Controller (NCC) for signaling and control purposes. The NCC is part of the Land Earth Station (LES) otherwise called the Communications Ground Segment (CGS). The NCC is involved in processing both incoming calls from the land network (e.g., the Public Switched Telephone Network) to a mobile terminal and outgoing calls from a mobile terminal through the NCC's interface with a satellite.² As TMI states, any mobile terminal "that has gained access to the

²Application, Exhibit 5, at 1.

circuit-switched mobile telephone service system, will be under control of the LES.”³

A similar process is involved when a mobile terminal is using packet switched service. The mobile terminal will be accessible by the Data Hub (DH) for signaling and control purposes. The mobile terminal will be tuned to and receive a signaling and control channel that originates at the TMI DH, which is a part of the CGS, or LES.⁴ Any mobile terminal that has gained access to the data system, will be under control of the LES. The mobile terminal must receive and act upon commands issued to it by the LES, and the LES assigns all channel frequencies, similar to the circuit-switched mobile telephone system.⁵

The FBI also understands that if the TMI application is granted, TMI will be authorized to provide a dispatch radio service directly to its customers. As we understand, any registered group of subscribers with this service operating within the same satellite beam can talk with one another via their respective mobile terminals. Although this type of service does not “downlink” with the LES, absent a United States retail service provider, it is unclear what means the United States Government would have to effect lawfully authorized electronic surveillance of dispatch radio communications and associated data.

Given the current system architecture and the degree of foreign control of the Canadian based LES in processing voice and data communications, it is unclear to the FBI whether the existing legal authorities would allow the United States Government to conduct lawfully authorized electronic surveillance of communications transmitted by the system. Moreover, even if the legal process and procedures were adequate, it is unclear whether any current

³Application, Exhibit 3, at 4. TMI also states, “The LES assigns all channel frequencies, including those to be used for signaling only purposes.” Ibid.

⁴Application, Exhibit 5, at 3.

⁵Application, Exhibit 3, at 5-6.

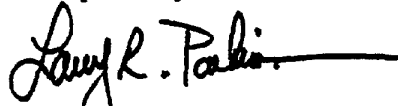
technical intercept capability exists ~~that~~ is accessible and secure within the United States. Thus, if the TMI application were granted at this time, there may not be any technical capability whatsoever for the United States Government to utilize to meet its law enforcement, public safety and national security obligations.

IV. CONCLUSION.

For the reasons set forth above, the FBI respectfully requests the Commission to defer action on TMI's application pending resolution of the law enforcement, public safety and national security concerns with the proposed use of the Canadian LES to switch, control, and route U.S. communications. In addition, should the Commission ultimately approve TMI's application for a blanket authorization to operate METs using TMI's Satellite, the FBI requests that the Commission require TMI, as a condition to the grant of authority, to provide a point of presence in the United States that affords satisfactory technical ability and the responsibility to process lawful electronic surveillance, prevent and detect violations of U.S. communications privacy, and respond to NSEP requirements, which would ultimately satisfy the FBI's law enforcement, public safety and national security concerns.

Date: April 7, 1999

Respectfully submitted,



Larry R. Parkinson
General Counsel
Federal Bureau of Investigation
935 Pennsylvania Avenue, N.W.
Washington, D.C. 20535
Telephone: (202) 324-6829

Certificate of Service

I, Lynn A. Pierce, Federal Bureau of Investigation, hereby certify that a true copy of the foregoing Petition to Defer and Request for Imposition of Conditions was served this 7th day of April, 1999, via hand delivery (indicated by *) or by mail to the following parties:

Roderick Porter *
Acting Chief
International Bureau
Federal Communications Commission
2000 M Street, N.W., Room 830
Washington, D.C. 20554

Cassandra Thomas *
Deputy Chief, Satellite and
RadioCommunication Division
International Bureau
Federal Communications Commission
2000 M. Street, N.W., Room 810
Washington, D.C. 20554

Karl Kensinger*
International Bureau
Federal Communications Commission
2000 M Street, N.W., Suite 800
Washington, D.C. 20554

Jennifer Gilsenan*
Policy Branch
Satellite and Radiocommunications Div.
International Bureau
Federal Communications Commission
2000 M. Street, N.W., Suite 500
Washington, D.C. 20554

Harry Ng*
International Bureau
Federal Communications Commission
2000 M. Street, N.W., Suite 800
Washington, D.C. 20554

Thomas S. Tycz *
Chief, Satellite and Radiocommunication
Division
International Bureau
Federal Communications Commission
2000 M Street, N.W., Room 811
Washington, D.C. 20554

Fern Jarmulnek*
Chief, Policy Branch
Satellite and Radiocommunications Div.
Federal Communications Commission
2000 M. Street, N.W., Suite 800
Washington, D.C. 20554

Ronald Repasi*
International Bureau
Federal Communications Commission
2000 M. Street, N.W., Suite 500
Washington, D.C. 20554

Frank Peace*
Satellite Engineering Branch
Satellite and Radiocommunications Div.
International Bureau
Federal Communications Commission
2000 M. Street, N.W., Suite 800
Washington, D.C. 20554

Virginia Marshall*
International Bureau
Federal Communications Commission
2000 M. Street, N.W., Suite 515
Washington, D.C. 20554

Jill Ball*
International Bureau
Federal Communications Commission
2000 M. Street, N.W., Suite 800
Washington, D.C. 20554

Penny Mason*
International Bureau
Federal Communications Commission
2000 M. Street, N.W.
Washington, D.C. 20554

Michael D. Kennedy
Vice President and Director
Barry Lambergman
Manager, Satellite Regulatory Affairs
Motorola, Inc.
1350 Eye Street, N.W.
Washington, D.C. 20005

George C. Staple, Esq.
R. Edward Price
Koteen & Naftalin, L.L.P.
1150 Connecticut Avenue, N.W.
Suite 1000
Washington, D.C. 20036-4104

William D. Wallace
Crowell & Moring, L.L.P.
1001 Pennsylvania Avenue, N.W.
Washington D.C. 20004

Maury D. Shenk
Philip L. Malet
James M. Talens
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036

Cecily Holiday*
Federal Communications Commission
2000 M. Street, N.W., Suite 500
Washington, D.C. 20554

Patricia A. Mahoney
Assistant General Counsel
Regulatory and Trade Policy
Brent H. Weingardt
Counsel, Regulatory and Trade Policy
Iridium LLC
1575 Eye Street, N.W., Suite 900
Washington, D.C. 20005

William F. Adler *
Vice President and General Counsel
Globalstar, L.P.
3200 Zanker Road
San Jose, CA 95134

Lon C. Levin
Vice President and Regulatory Counsel
AMSC Subsidiary Corporation
10802 Park Ridge Boulevard
Reston, VA 20191

Tom W. Davidson
Akin Gump Strauss Hauer & Feld, L.L.P.
1333 New Hampshire Ave., N.W., Suite 400
Washington, D.C. 20036

Bruce D. Jacobs
Glenn S. Richards
Stephen J. Berman
Fisher Wayland Cooper Leader
& Zaragoza L.L.P.
2001 Pennsylvania Ave., N.W., Suite 400
Washington, D.C. 20006


Lynn A. Pierce